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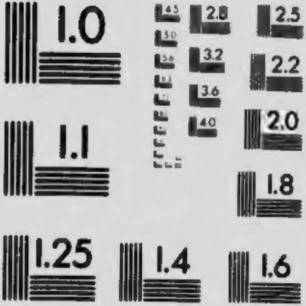

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The ◇◇ Spartan Oil Company Limited.

and the Possibilities of a Commercial Oil Field Adjacent to Vancouver.

British Columbia.

Compliments
S.W. Miller & Co.
Stock Brokers
Vancouver Block, Vancouver, B.C.
Member of Vancouver Stock Exchange.

1918

General Information

Relating to the Possibilities of Commercial Oil at Burnaby, B. C.

WIDESPREAD interest is being shown in the oil situation in the Burnaby District and the field has recently been examined by many prominent oil men and eminent geologists, all of whom are of the same opinion—that the oil seepages make a wonderful showing and, with other favorable indications, point strongly to the probability of commercial oil being found.

EVERY person should be interested in the work of testing, which is going on out at Burnaby. An honest, conscientious effort is being made to locate oil; and if the results are successful, a tremendous impetus will be given to business generally throughout the whole of Western Canada. There is no single factor that would so completely revolutionize economic conditions in the sections as the striking of oil in commercial quantities adjacent to Vancouver, B. C.

Some Facts Concerning Petroleum.

THE word petroleum is derived from the Latin word petra (rock) and oleum (oil). It is a natural oily product occurring in the crust of the earth. It has no connection with coal in origin or any other way, being found in different rock formations.

¶ Petroleum belongs to the bitumen family, made up of compounds of carbon and hydrogen and appearing as gases, fluids or solids. Petroleum is a fluid and more or less colored member of the bitumen family. Asphalt is a solid bitumen. Petroleum is the pivotal member of the bitumen group.

¶ It is an important fact to remember that natural gas, also a member of the bitumen family, is always found with petroleum, for it is a product of its formation; also that petroleum exposed to air concentrates to tar, pitch, wax or asphalt. For this reason, surface deposits, or seepages, are regarded as slow exudations of petroleum from nearby subterraneous accumulations.

¶ Petroleum is the most abundant and most valuable of the bitumens. It is always found as an oily liquid: sometimes thin, at other times thick and viscous. Its color varies from water white to yellow, dirty brown, almost black, the darker colors being more common. Its odour is generally offensive, penetrating and persistent. Its chief characteristic is its volatility.

¶ Petroleum is always some compound of carbon and hydrogen with various impurities. The carbon is between 80 and 90%, and the hydrogen from 10 to 15% of the compound. The impurities are sulphur and nitrogen, sulphur and carbon and hydrogen, also oxygen, arsenic and phosphorus, but never in very large quantities.

¶ Oil men speak of petroleum as either paraffin or light, or as asphalt oil or heavy. The weights are figured on Baume's hydrometer scale. Water is 10° Baume and the fixed standard. Hence heavy or asphalt base oil would be 20° Baume, and light or paraffin base oil 60° Baume, more or less. The base of the oils is the nature of the solids obtained in refining.

¶ Petroleum is most widely distributed over the world and is found in all ages of rocks, but the commercial deposits are generally found in the lower unaltered rock formations of special periods. The valuable accumulations are more or less scattered. Surface indications, such as oil bubbles in wells and springs, scum on ponds and streams, have led to the discovery of wells.

¶ As to the cavity theory—it is authoritatively stated that caverns and fissures are not necessarily associated with the deposits of petroleum. Oil comes from porous rock formations and not from appreciable openings in the strata. In other words, oil comes from the multitude of tiny spaces between the grains of the rock itself, instead of from one big chamber or series of connecting chambers. Furthermore, oil wells have been discovered on the uplands, adjoining productive valleys.

¶ The usual method of indicating an oil field has been to study the rock formation and sink an occasional test well.

¶ Petroleum is not volcanic in its origin, and salt water is almost universally found in association with it.

¶ As to the origin of petroleum, chemists and geologists quarrel, with the fight won by geologists. The chemist says petroleum is inorganic, the result of chemical reaction, and makes petroleum in the laboratory. But a chemical reaction is definite and unvaried, whereas petroleum varies in physical and chemical character. The chemist says this variation is due to impurities and the movement of oil in the rocks; yet the truth is, there is very little movement of oil in the rocks.

¶ The geologists, whose opinion is the one to follow, declare petroleum is of organic origin, due to the slow decomposition of organic remains, animal or vegetable, stored in rocks since their formation.

¶ What is the lesson obtained in this regard from the investigation of the California oil fields? There the oil is found in foraminiferal and diatomaceous shale, called Monterey shale. Under the lens of the microscope are seen small round dots, which are the siliceous skeletons of minute marine organisms, called diatoms, a low order of plants or algae, with power of multiplying at great speed, increasing 1,000,000 a month, and so closely packed as to form the bulk of the rock. These diatoms secrete algae wax or oil to the extent of 0.75% to 4% of their total volume.

¶ Yet every oil field has its own characteristics. The light colored oils of Russia are of vegetable origin. The differences are due to animal or plant remains, the degrees of heat to which the rock formation has been subjected, the time of decomposition, and the rock material itself.

¶ The character and the attitude of shale control the petroleum deposits.

¶ The valuable deposits so far discovered depend on (1) suitable conditions in the rocks and (2) adequate original sources of supply.

¶ The first requisite of an oil field is a coarse grained porous rock to act as a reservoir. This is usually sandstone. Hence "oil sands"; but sometimes it is limestone, pudding-stone or conglomerate. Further, this reservoir rock must be entirely covered by a fine grained non-porous layer, impervious and unbroken, if the reservoir is to retain the oil. Fine grained shale is the commonest and most perfect cover. A third factor may be folds in the strata—arches or troughs resulting from shrinking and wrinkling of the earth's crust. The deposit is found under the roofs of these arches or anticlines, because the oil is much lighter than the salt water occurring in the same strata, and therefore, it rises to the highest point possible under the arching, impervious shale cover. This is an especially favorable sign, but it is not essential.

¶ Rock containing petroleum may apparently be perfectly solid throughout; but, under the magnifying glass, millions of tiny spaces appear between the different sand grains, and water will find its way through thick pieces of the rock in a short time. About one-eighth of the bulk of the rock is petroleum.

¶ Oil usually exists under pressure because of the imprisoned natural gas always associated with petroleum.

¶ In 1911 the world's supply of oil was 400,000,000 barrels. The world supply of petroleum is absolutely limited by the quantity of fossil remains to undergo decomposition when imprisoned in the strata at the time of their formation; so that when this decomposition is once completed, it is finished for all time. These oil-bearing strata have existed for millions of years and the decomposition process completed years ago. The quantity accumulated in 10,000 years would be insignificant.

¶ Hence this important conclusion: The entire supply of petroleum procurable is now already stored underground waiting for the drill. It will not be added to. Every barrel taken away leaves so much less forever.

¶ The principal hope for the future discovery of new oil fields is from surface indications of petroleum.

oil

Oil Seepage on D. L. 130, Burnaby, where a test hole is now being drilled for the Spartan Oil Co., Ltd.

Possibilities of Oil at Burnaby.

❡ Last month the whole district of Burnaby was thoroughly examined for oil by Mr. W. R. Jewell, of Kansas City, Mo., acting for outside capitalists, who have since become interested as the result of his examination. Mr. Jewell is one of the best known oil men on the American Continent. He was located at Bakersville, California, for several years, where he had extensive practice as an oil expert. He was previously connected with U. S. Geological Survey, and has made expert examinations of all important oil fields on this continent. He is now engaged in private offices at Kansas City, Mo., as a member of the firm of Sur & Jewell, Geologists and Petroleum Engineers.

❡ The following data and recommendations are taken from his report, based upon a careful and complete examination of the Burnaby field:

". . . . On Still Creek, at a point one mile west of the seepage, the writer personally saw natural gas bubbling through the water. . . .

"Altogether there is a thickness of approximately three thousand feet of Tertiary measures, underlain by uncomformable Cretaceous rocks. Hence three thousand feet would represent the extreme limit of drilling depth, were oil not found at less depth. . . .

". . . . In general throughout this area the dip of the strata is southwest. Two notable exceptions were found, however, which, when correlated, bear strong evidence of an anticlinal fold. . . .

". . . . At this point it is interesting to note that the petroleum seepages are near the indicated apex of this fold. . . .

". . . . It is believed by the writer that certain of the Tertiary strata are oil and gas bearing and that through the agency of erosion—the same agency which formed the valley in which the seepages occur—the impervious rock which capped the oil-bearing strata has been sufficiently denuded to allow the escape of gas and oil, giving rise to the seepage as seen today. The apex of the structure would be the first to be denuded, and it is invariably along the high points in a structure that we find the strongest accumulation of petroleum and natural gas."

"Since the seepages prove without a doubt that formations of the Tertiary are petroliferous, and since we have strong evidence that those formations are embraced in an anticlinal fold, we may very reasonably expect to develop oil upon drilling any point along the apex of the anticline.

"Because of a thickness of twenty feet of peat, it is impossible to study the nature and occurrence of the seepages, and we are therefore unable to definitely determine the exact horizon of the tertiary which is furnishing the oil. In the absence of faulting, however, it is reasonable to expect that the petroliferous formation will be found at a shallow depth, probably at less than a thousand feet.

". . . . By drainage area is meant the lateral extent of oil-bearing formation across a structure which will contribute oil to that structure and continue to contribute when the structure is drilled. In the case of this anticlinal structure there is more than sufficient drainage or tributary area to support a commercially important oil field, provided there is a commensurate thickness of oil sands. . . .

". . . . It is the writer's opinion that a well drilled near the centre of the north half of District Lot 130 will obtain not only this seepage oil, but oil from deeper measures."

SALIENT POINTS.

"1. A seepage of petroleum occurs near the south line of District Lot 130 and demonstrates that a certain member or members of the tertiary rocks are oil-bearing.

"2. California oil is produced almost exclusively from the tertiary and the oil from these seepages bears a remarkable similarity to California oil.

"3. There is an estimated thickness of 3,000 feet of these tertiary rocks. No doubt the oil seeps from the upper members of these rocks, due to the removal or weakening of the cap rock through erosional agency.

"4. Where one member of the tertiary is petroliferous it usually follows that deeper measures are also oil-bearing, and hence it is likely that drilling near the seepage will not only develop the seepage oil but also oil from deeper measures.

"5. This seepage of oil occurs on or near the apex of an anticlinal fold passing through the southwest corner of D. L. 130.

"6. In view of the facts that certain measures of the tertiary are known to be oil-bearing, and that these members are involved in a structural fold which is highly conducive to the natural accumulation of oil and gas, we recommend Lots Nos. 130 and 131 for drilling, and believe that such drilling will develop a commercial production of oil."

(Signed) ***SUR & JEWELL***
Per W. R. JEWELL
Vancouver, B.C., August 10th, 1918.

Mr. E. A. Haggen, M.E., Editor of the Mining and Engineering Record, in a report to the company makes the following conclusions:

> "Traces or residues of petroleum form the most important indications on which to undertake drilling for petroleum in unexplored territory such as this, and the development of the great oil industries of Mexico and California has been due to following up the indications afforded by such seepages as you have at Burnaby Lake.
>
> Prospecting for petroleum in localities likely to give results is a work of national importance at the present time. The risk is the usual hazard of business, and is such as must be undertaken everywhere in the effort to develop possible but unproved natural resources in new territory. Expenditure in such work is not only legitimate but necessary to the discovery of new resources of such great economic value as petroleum. In my opinion you are fully justified in undertaking the development of these seepages at Burnaby Lake."

Mr. J. R. Lockard, M.E., formerly General Manager, Canadian Collieries (Dunsmuir) Ltd., says, concerning oil prospects in Burnaby:

> "I have never see better indications and prospects . . . . based on my experience in the oil fields of Pennsylvania, Ohio, Illinois and West Virginia, in none of which have I ever seen such favorable indications."

Other Expert Opinions.

¶ Sir Boverton Redwood, Bart., the great English authority on petroleum, in his "Treatise on Petroleum," has the Burnaby District mapped out as a probable oil field. (See Redwood's comparative composition of Natural Gas.)

¶ Among other expert and technical men who have expressed a favorable opinion as to the probabilities of oil and advocated the advisability of drilling in Burnaby are Mr. Chas. Camsell, of the Dominion Geological Survey; Mr. Victor Dolmadge, also of the Dominion Geological Survey; Mr. W. M. Brewer, of the Provincial Department of Mines, Mr. W. Dougall, of the C. P. Railway Natural Resources Department, and many others.

Analysis of the Oil.

¶ Analysis of the oil from Burnaby has been made by A. D. Little Co., Ltd., of Montreal; Department of Mines, Ottawa, and G. S. Eldridge & Co., Vancouver, B. C.

A. D. LITTLE CO., LTD.,

reported as follows:

"The oil itself when separated from the water was a dark brownish black viscous liquid, resembling in appearance some of the heavy crude oil. The specific gravity at 15.5° C. was 0.978, equivalent to 13° Baume. The sulphur was 0.56%, which is not an excessive amount, nor does the oil have the disagreeable odor so often accompanying Canadian crude oils. The average sulphur content of American oils is about 0.5%, and of Canadian crudes 0.98%. The distillation resulted as follows:

Up to 200 C.	17.2%
200 to 250 C.	8.2%
250 to 300 C.	5.9%
300 to 320 C.	43.1%
Residue	24.5%

"The tests indicate that this oil belongs to the asphalt group and its gravity is about the same as the heavy oils from Mexico, California and Wyoming. It is heavier, however, than the average grade of crude oils from California, Pennsylvania, Oklahoma, Ohio and Canada. You will appreciate that the sample does not properly represent the oil in the natural state in which it would be found in the earth, and we believe, judging from the sample, that this oil has promise of commercial value."

The Department of Mines, Ottawa, reported as follows:

(a) Specific gravity at 15.5° C.	0.928
(b) Saponifications value	3
(c) Distillation:—	

Water	14.3%	by	volume
150 to 200 C.	1.6%	"	"
200 to 250 C.	2.2%	"	"
250 to 320 C.	52.7%	"	"
Residue and Loss	29.2%	"	"

¶ The residue is a pitchy solid at ordinary temperature. By carrying the distillation to a higher temperature the yield of oil can be increased, while the pitchy residue is reduced in quantity, ultimately leaving coke. The low saponification value indicates that this is largely a crude mineral oil.

G. S. ELDRIDGE & CO.

reported the following analysis:

March 6, 1918

Water mixed with sample	16.4%	**Light Oils**
0° to 150° C.	2.2%	
150° to 200° C.	7.3%	**Illuminating Oils**
200° to 250° C.	27.6%	
250° to 300° C.	11.8%	
Above 300° C.	26.2%	**Lubricating Oils**
Coke and Residuum	8.5%	

July 30, 1918

Light Oils	0° to 150° C.	0.1%
Kerosene Oil No. 1	150° to 210° C.	5.9%
Kerosene Oil No. 2	210° to 270° C.	10.3%
Kerosene Oil No. 3	270° to 300° C.	14.0%
Light Lubricating Oil	300° to 320° C.	15.3%
Medium Lubricating Oil	320° to 350° C.	20.1%
Heavy Lubricating Oil above	350° C.	22.0%
Residuum and Coke		12.3%

SIR BOVERTON REDWOOD'S

comparison of analysis of natural gas is given below:

Constituents.	Fredonia, N. Y.	Sheffield, Warren Co., Pa.	Kane, McKean Co., Pa.	Wilcox, McKean Co., Pa.	Steechly, near Oil City, Pa.	Lyons Run, Murrysville, Pa	Racoon Creek, Pa.	Houston, near Canonsburg, Pa	Murrysville, Pa	Pittsburg Exhibition Grounds, Pa.	Cleveland, O.	Creighton, O.	Painters & Co., Pittsburg, Pa. U.S.A.	Baden, Pa.	Kokomo, Ind.	Allegheny City, Saltwell.	Vancouver, British Columbia
Nitrogen	9.54	9.06	9.79	9.41	4.51	2.02	9.91	15.30	4.40	7.30	6.30	0	0.70	12.32	6.00	7.10	6.30
Carbondioxide	0.41	0.30	0.20	0.21	0.05	0.28	trace	0.44	0.20	0.52	0.20	3.64	0.40	0.41	0.40	0.30	0.14
Hydrogen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ammonia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oxygen	trace	trace	trace	trace	trace	trace	trace	trace	trace	trace	0	0	0	0	0	0	0
Sulphuretted Hydrogen	0	0	0	0	0	0	trace	0	0	0	0	0	0	0	0	0	0
Paraffin	90.05	90.64	90.01	90.38	95.44	97.70	90.09	84.26	95.40	92.18	93.50	96.36	98.90	87.27	93.60	92.60	93.56

Showing that the natural gas of this locality compares favorably with that of other proven oil sections.

Boring for Oil a Patriotic Duty.

¶ Legitimate development of oil prospects at this time can be considered a patriotic duty. What would assist Canada and her Allies more than an oil field in this part of the world? Canada imports annually some $21,000,000 worth of oil. A part of this would then remain in the country, not to speak of the many by-products which would naturally be manufactured.

¶ The great economic value of oil to a country is fully illustrated by the action of the Canadian Government in paying a bounty of 52½c a barrel for every barrel of oil produced in the Dominion of Canada; and as this bounty is paid on top of an import duty, it gives the Canadian Oil Companies nearly $1.00 a barrel over the American price.

¶ The very fact that a Government is willing to give producers of oil a free bounty of 52½c a barrel in war times, when all industries are being heavily taxed, is probably the best evidence in the world that legitimate prospecting for oil should be encouraged.

Standard Oil Head Says: "Save Gasoline."

A. C. BEDFORD, President of the Standard Oil Company of New Jersey and Chairman of the Committee on Petroleum of the Advisory Committee of the Council of National Defence, says:

"It is important that the country should understand the serious situation now prevailing in the petroleum industry. This country is producing crude oil at the rate of about 300,000,000 barrels a year, but is using it at the rate of about 335,000,000 barrels a year. The amount of crude oil in storage (all grades) May 1, 1917, was 165,688,797 barrels. The country is absorbing the entire current production and drawing very rapidly upon its reserve supply.

"In 1910 there were 400,000 automobiles in use in the United States. In 1916 the number was 2,250,000. Today there are more than 4,000,000 cars, demanding more than 40,000,000 barrels of gasoline a year. And other uses of gasoline and oil are expanding upon an enormous scale.

"The meaning of the foregoing is this: If our Government is to have the petroleum it will need to prosecute the war successfully, and supply the necessities growing directly out of the war, two steps will have to be taken:

"(1) The public will have to economize in the use of gasoline. Not a gallon should be used in the present emergency except for some useful end.

"(2) EVERY OIL PRODUCER IN THE COUNTRY SHOULD BE ENCOURAGED AS A PATRIOTIC EFFORT TO SECURE THE UTMOST POSSIBLE OUTPUT OF CRUDE OIL. THE PRESENT EXPENSE OF DRILLING NEW WELLS IS INCREASING, BUT THE OIL IS TO BE HAD IF THE PRODUCERS IN THE OIL BUSINESS WILL REDOUBLE THEIR EFFORTS TO GET IT OUT OF THE GROUND."

The Age of Oil.

¶ One thing accomplished by the present war, the effects of which will be with us for generations, is the conversion of vast quantities of machinery from coal-burning to oil-burning apparatus. Oil moves the world, and the age of coal is past.

¶ Shipbuilding is proceeding at an unprecedented rate on every coast. The great quantity of space formerly given over to fuel has been reduced seventy-five per cent., for practically all the ships that are being built today will be propelled by oil fuel, which requires only one-quarter of the bunker space formerly necessary to carry coal fuel. In addition to this vast saving, only twenty-five per cent. of the man power is required to operate an oil-burning steamer, as compared to that required for a coal-operated boat.

¶ Oil has therefore come into its own. All the things that the flamboyant promoter of other days has said about oil, wild as he may have thought his own dreams, have come true. The world wants oil, and more oil, and keeps on demanding further and further supplies. The drills churn night and day, seeking the oil-bearing stratas, and they bore down into the bowels of the earth from the Peace River of Canada to the tip end of Patagonia. Every day sees vast new supplies added to the world's markets; and when transportation facilities are more available, oil will quickly push coal into a purely local commodity.

¶ Machinery is being rapidly improved so that the highest degree of efficiency is obtained from petroleum and its by-products, and in the meantime the price obtained for petroleum mounts up to new and undreamed figures. The oil producer profits amazingly.

¶ Many investors have held back from the purchase of newer oil securities in the belief that these represented merely the false representation of some irresponsible exploiter; but gradually it has been driven home that oil is making good, and that the company does not necessarily have to be in business for a generation to become a safe, profit-earning institution. Oil is money, and in most instances at the mouth of the well; consequently the younger oil company with producing properties begins earning profits the day of its organization. It has come to be rather the accepted idea that these profits be divided among the shareholders, and in many cases the disbursement is made on a monthly basis. The plan has been in vogue for upwards of three years, and while, of course, there have been disappointments in some cases, misrepresentation in others, on the whole the frequent dividend plan has been a demonstrated success.

¶ Only the other day, one of these younger companies brought in a number of new wells, and its profits now mean 100% per annum on its capital stock. The shares moved up from $2.00 or $3.00 to $11.00 in a few days. The several thousand investors who had bought the stock suddenly found their investment three or four times as valuable as they had ever had any reason to believe. The earnest efforts being made by innumerable smaller companies throughout North America to increase production are likely in the next few months to bring repeated examples like the one just recorded.

¶ The production of oil today is not the gamble of former times, for knowledge of oil geology has kept pace with the demand for the commodity. The oil expert today can fairly well determine the proper spot for sinking an oil well, and the amount of money usually required for this purpose is not great. Frequently the returns of the first few days from the successful well cover the entire cost.

Price of Petroleum.

¶ Never in the history of the petroleum industry have the prices of crude petroleum been so uniformly high, and never before have the reasons for the high prices been so real.

¶ From an initial well drilled fifty-nine years ago, petroleum have developed into as important an economic factor as copper, steel, coal and electricity.

¶ Practically every wheel in the workshops of the world is lubricated with petroleum. It furnishes light in the form of kerosene to three-quarters of the inhabited globe; and with the development of motors cars, aeroplanes, tractors, motor boats, and all types of gas engines, the demand for the crude product has grown beyond the ability to supply it. At the present time the use of oil as fuel is coming into general use, all of the United States destroyers being equipped with oil-burning engines, and a large percentage of the boats built by the U. S. Emergency Fleet Corporation being equipped to burn oil.

¶ It is the opinion of those best versed in the oil industry that so long as the law of supply and demand exists, just so long must the price of oil either remain constant or rise.

Casing and Drilling Equipment en route to the
Burnaby Field

Spartan Oil Company, Limited

(Non-Personal Liability)

Incorporated under the Companies Act Revised
Statutes of British Columbia, 1911,
and Amending Acts.

AUTHORIZED CAPITAL:

$250,000.00, divided into 1,000,000 Shares of
25 cents each.

DIRECTORS:

J. B. Woodworth, Mining Engineer	Vancouver, B. C.
S. G. Campbell, Contractor	Vancouver, B. C.
J. R. Lockard, Lumber	Vancouver, B. C.
W. H. Nanson, Broker	Vancouver, B. C.
W. Whalley, Secretary	Vancouver, B. C.

BANKERS:

Royal Bank of Canada.

AUDITORS:

Kendall, Barr & Co., Dominion Building.

SOLICITOR:

W. G. Anderson.

Starting Drilling Operations on the Test Hole at Burnaby

Government Permission.

¶ Official permission for the issue of the Company's shares as required by Order-in-Council (3439) of December 22nd, 1917, has been duly obtained.

Organization.

¶ The Spartan Oil Company, Limited, has been organized for the purpose of exploring and developing oil prospects in Burnaby, B. C.

Holdings.

¶ The Company holds Government license for the exploration of oil on all of District Lot 131, containing 160 acres, and a royalty lease on 100 acres in District Lot 130, Burnaby District.

Management.

¶ The management of the Company's affairs will be in charge of Mr. J. B. Woodworth and Mr. J. R. Lockard, both men of considerable experience in this line of business.

Finances.

¶ Sufficient money is now in the treasury to insure the completion of test drilling to a depth of 2,000 feet.

Plan of Development.

¶ A test hole is being drilled on District Lot 130, Burnaby District, and the contract for the work has been let to Stone & Knight, of Spokane, Wash. The contractors have their machinery on the ground and are proceeding forthwith to drill the test hole to a depth of at least 2,000 feet, unless oil shall be developed in commercial quantities at a lesser depth. The geological outcrops on the Company's property indicate that oil should be developed at or about 1,000 feet.

Commonsense View.

¶ No one should invest money in oil prospecting unless he can afford to lose; and before doing so he should assure himself that an expert of repute has examined the ground it is proposed to drill, located the holes, and expressed confidence that the particular ground is worth prospecting.

Our Opinion.

¶ In our opinion the shares of the Spartan Oil Company, Limited, offer the public an exceptional opportunity for speculation. The Company's property has been thoroughly examined by an oil expert of standing, who has advised the drilling and expressed himself favorably as to a supply of commercial oil. If oil should be secured, the stock will have considerable value; but, oil or no oil, you can be assured of a good honest run for your money.

¶ The stock is now listed on the Vancouver Stock Exchange and we predict very active trading in the shares. We recommend the shares to our clients as a speculation, and will be glad to execute your orders at the market price.

Use the enclosed buying order.

S. W. MILLER & CO.

STOCK AND BOND BROKERS

604-605 Vancouver Block   Vancouver, B. C.

Member Vancouver Stock Exchange

The information contained in this circular has been derived from reliable sources; and while we do not guarantee it, we believe it to be accurate.

WARD, ELLWOOD & CO. PRINTERS, VANCOUVER

"Petroleum is a priceless resource, for it can never be replaced. . . . . .

"To industry, agriculture, commerce, and the pleasures of life, petroleum is now essential."

FRANKLIN K. LANE,
Secretary of the Interior, U. S. A.